



(12) **UK Patent** (19) **GB** (11) **2 391 575** (13) **B**

(45) Date of publication: **19.05.2004**

(54) Title of the invention: **Lubricant coating for expandable tubular members**

(51) Int Cl⁷: **B23P 17/02, E21B 43/10**

(21) Application No: **0325072.7**

(22) Date of Filing: **05.10.2000**

Date Lodged: **27.10.2003**

(30) Priority Data:

(31) **60159039** (32) **12.10.1999** (33) **US**

(31) **60165228** (32) **12.11.1999** (33) **US**

(62) Divided from Application No
0208367.3 under Section 15(4) of the Patents
Act 1977

(43) Date A Publication: **11.02.2004**

(52) UK CL (Edition V):
E1F FLA

(56) Documents Cited:
None

(58) Field of Search:
As for published application 2391575 A viz:
UK CL (Edition V) **E1F**
INT CL⁷ **B23P, E21B**
Other: **WPI EPODOC JAPIO**
updated as appropriate

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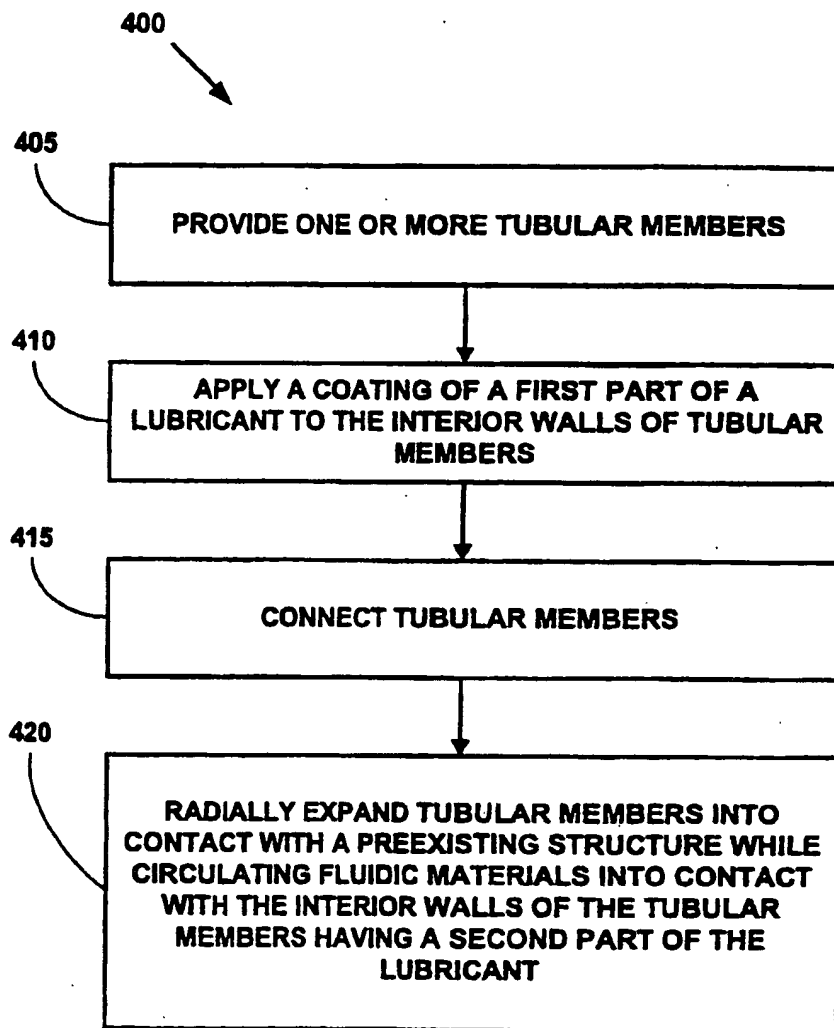


FIGURE 1

LUBRICANT COATING FOR EXPANDABLE TUBULAR MEMBERS

Background of the Invention

5 This invention relates generally to tubular members, and in particular to lubricant coatings for tubular members that are formed using expandable tubing.

Conventionally, when a wellbore is created, a number of casings are installed in the borehole to prevent collapse of the borehole wall and to prevent undesired outflow of drilling fluid into the formation or inflow of fluid from the formation into the borehole.

10 The borehole is drilled in intervals whereby a casing which is to be installed in a lower borehole interval is lowered through a previously installed casing of an upper borehole interval. As a consequence of this procedure the casing of the lower interval is of smaller diameter than the casing of the upper interval. Thus, the casings are in a nested arrangement with casing diameters decreasing in downward direction. Cement

15 annuli are provided between the outer surfaces of the casings and the borehole wall to seal the casings from the borehole wall. As a consequence of this nested arrangement a relatively large borehole diameter is required at the upper part of the wellbore. Such a large borehole diameter involves increased costs due to heavy casing handling equipment, large drill bits and increased volumes of drilling fluid and drill cuttings.

20 Moreover, increased drilling rig time is involved due to required cement pumping, cement hardening, required equipment changes due to large variations in hole diameters drilled in the course of the well, and the large volume of cuttings drilled and removed.

25 The present invention is directed to overcoming one or more of the limitations of the existing procedures for forming wellbores.

Summary of the Invention

According to a first aspect of the present invention there is provided a method of coupling an expandable tubular assembly including one or more tubular members to a preexisting structure, comprising:

30 coating the interior surfaces of the tubular members with a first part of a lubricant;

positioning the tubular members within a preexisting structure;

circulating a fluidic material including a second part of the lubricant into contact with the coating of the first part of the lubricant; and

32. The apparatus of claim 2, wherein the first part of the lubricant comprises:
1 to 90 percent solids by volume.

5 33. The apparatus of claim 32, wherein the first part of the lubricant comprises:
5 to 70 percent solids by volume.

34. The apparatus of claim 33, wherein the first part of the lubricant comprises:
15 to 50 percent solids by volume.

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35. The apparatus of claim 2, wherein the first part of the lubricant comprises:
5 to 80 percent graphite;
5 to 80 percent molybdenum disulfide;
1 to 40 percent PTFE; and
1 to 40 percent silicone polymers.

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36. The apparatus of claim 2, wherein the lubricant comprises one or more of the
following: ester; sulfurized oil; alkanolamides; amine; amine salt; olefin; polyolefins; C-8
to C-18 linear alcohol; derivative of C-8 to C-18 linear alcohol including ester; derivative
of C-8 to C-18 linear alcohol including amine; derivative of C-8 to C-18 linear alcohol
including carboxylate; sulfonate; polyethylene glycol; silicone; siloxane; dinonyl phenol;
and ethylene oxide/propylene oxide block copolymers.

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